

AMENDMENTS TO THE CLAIMS:

The Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A method of using at least one filter to receive signals from an antenna by changing filtering characteristics, said method comprising:

changing filtering characteristics on a main signal path as a function of at least one amplitude on another signal path (18) coupled to the main signal path where the main signal path and the other signal path have a frequency band of operation and where said amplitude is in an adjacent band relative to the frequency band of operation.

2. (Original) The method of claim 1 wherein said changing comprises:

using an amplitude in said frequency band of operation on said main signal path to change said filtering characteristics on said main signal path.

3. (Currently amended) The method of claim 1 further comprising:

receiving analog signals on said main signal path;

producing a replica of said analog signals on the other signal path where the other signal path is a band edge detection path;

dividing said analog signals on said band edge detection path onto an upper edge detection path and a lower edge detection path; and

producing an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a

lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path.

4. (Previously presented) The method of claim 2 further comprising:

providing a replica of said signals on a detection path;

producing an amplitude for said signals in said frequency band of operation on said detection path; and

changing said filtering characteristics on said main signal path based on a comparison between said at least one amplitude for said adjacent band and said amplitude for said frequency band of operation.

5. (Previously presented) The method of claim 1 wherein said changing comprises:

switching as a function of said at least one amplitude for said adjacent band between a plurality of filters having different filtering characteristics.

7. (Original) The method of claim 1 wherein said changing comprises:

narrowing a bandwidth for a filter on said main signal path to attenuate signals on at least one band edge of said frequency band of operation.

8. (Previously presented) A method of receiving signals, said method comprising:

changing filtering characteristics on a main signal path as a function of at least one band edge of a frequency band of operation of a receiver depending on at least one amplitude for signals not under the control of said receiver.

9. (Original) The method of claim 8 wherein said changing comprises:

using an amplitude of said frequency band of operation on said main signal path.

10. (Currently amended) The method of claim 8 further comprising:

receiving analog signals on said main signal path;

producing a replica of said analog signals on ~~the other~~ another signal path where the other signal path is a band edge detection path;

dividing said analog signals on said band edge detection path onto an upper edge detection path ~~an~~ and a lower edge detection path; and

producing an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path.

11. (Previously presented) The method of claim 10 further comprising:

providing a replica of said analog signals on a detection path;

producing an amplitude for said analog signals in said frequency band of operation on said detection path; and

changing said filtering characteristics on said main signal path based on a comparison between said at least one amplitude for said signals not under the control of said receiver and said amplitude for said frequency band of operation.

12. (Original) The method of claim 8 wherein said changing comprises:

switching as a function of said at least one amplitude for said signals not under the control of said receiver between a plurality of filters having different filtering characteristics.

13. (Previously presented) The method of claim 10 wherein said receiving and producing comprises:

receiving analog signals at radio frequency on said main signal path; and
producing a replica of said radio frequency analog signals on a band edge detection path.

14. (Original) The method of claim 8 wherein said changing comprises:

narrowing a bandwidth for a filter on said main signal path to attenuate signals on at least one band edge of said frequency band of operation.

15. (Previously presented) A band edge amplitude reduction system for a receiver comprising:

a variable filter on a main signal path having a frequency band of operation; and
processing circuitry changes filtering characteristics of said variable filter as a function of at least one amplitude for a frequency band adjacent to the frequency band of operation or as a function of signals not under the control of said receiver or both.

16. (Previously presented) The system of claim 15 wherein said processing circuitry changes said variable filter characteristics on said main signal path as a function of at

least one amplitude for said adjacent band or said signals not under the control of said receiver and an amplitude for said frequency band of operation on said main signal path.

17. (Previously presented) The system of claim 15 further comprising band edge detection circuitry comprising:

a band edge detection path receives a replica of analog signals on said main signal path;

a signal divider divides said analog signals on said band edge detection path onto an upper edge detection path and a lower edge detection path; and

detection circuitry receives said signals on said upper edge detection path and said lower edge detection path and produces to said processing circuitry an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation and a lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation.

18. (Currently amended) The system of claim 16 further comprising:

a detection path receives a replica of said ~~analog~~ signals from said main signal path;

detection circuitry receives said ~~analog~~ signals from said detection path and produces an amplitude for said ~~analog~~ signals in said frequency band of operation on said detection path; and

said processing circuitry changes said filtering characteristics of said filter on said main signal path based on a comparison between said at least one amplitude for said

adjacent band or said signals not under the control of said receiver and said amplitude for said frequency band of operation.

19. (Previously presented) The system of claim 15 wherein said processing circuitry produces control signals to change said filtering characteristics by switching between a plurality of filters having different filtering characteristics as a function of said at least one amplitude for said adjacent band or said signals not under the control of said receiver.

20. (Original) The system of claim 15 wherein said processing circuitry produces control signals to narrow a bandwidth for said variable filter on said main signal path to attenuate signals on at least one band edge of said frequency band of operation.

21. (New) A method of using at least one filter to receive signals from an antenna by changing filtering characteristics, said method comprising:

changing filtering characteristics on a main signal path as a function of at least one amplitude on another signal path (18) coupled to the main signal path where the main signal path and the other signal path have a frequency band of operation and where said amplitude is in an adjacent band relative to the frequency band of operation;

receiving analog signals on said main signal path;

producing a replica of said analog signals on the other signal path where the other signal path is a band edge detection path;

dividing said analog signals on said band edge detection path onto an upper edge detection path and a lower edge detection path; and

producing an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path.

22. (New) A method of receiving signals, said method comprising:

changing filtering characteristics on a main signal path as a function of at least one band edge of a frequency band of operation of a receiver depending on at least one amplitude for signals not under the control of said receiver;

receiving analog signals on said main signal path;

producing a replica of said analog signals on another signal path where the other signal path is a band edge detection path;

dividing said analog signals on said band edge detection path onto an upper edge detection path and a lower edge detection path; and

producing an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path.

23. (New) A method of receiving signals, said method comprising:

changing filtering characteristics on a main signal path as a function of at least one band edge of a frequency band of operation of a receiver depending on at least one amplitude for signals not under the control of said receiver;

receiving analog signals on said main signal path;

producing a replica of said analog signals on another signal path where the other signal path is a band edge detection path;

dividing said analog signals on said band edge detection path onto an upper edge detection path and a lower edge detection path;

producing an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path;

providing a replica of said analog signals on a detection path;

producing an amplitude for said analog signals in said frequency band of operation on said detection path; and

changing said filtering characteristics on said main signal path based on a comparison between said at least one amplitude for said signals not under the control of said receiver and said amplitude for said frequency band of operation.

24. (New) A method of receiving signals, said method comprising:

changing filtering characteristics on a main signal path as a function of at least one band edge of a frequency band of operation of a receiver depending on at least one amplitude for signals not under the control of said receiver;

receiving analog signals at radio frequency on said main signal path;

producing a replica of said analog signals on a band edge detection path;

dividing said analog signals on said band edge detection path onto an upper edge detection path and a lower edge detection path; and

producing an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path.

25. (New) A band edge amplitude reduction system for a receiver comprising:
- a variable filter on a main signal path having a frequency band of operation;
 - processing circuitry changes filtering characteristics of said variable filter as a function of at least one amplitude for a frequency band adjacent to the frequency band of operation or as a function of signals not under the control of said receiver or both;
 - a band edge detection path receives a replica of analog signals on said main signal path;
 - a signal divider divides said analog signals on said band edge detection path onto an upper edge detection path and a lower edge detection path; and
 - detection circuitry receives said signals on said upper edge detection path and said lower edge detection path and produces to said processing circuitry an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation and a lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation.